

ONTARIO MINISTRY OF ENVIRONMENT



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OPERATING SUMMARY

BLENNHEIM

WATER TREATMENT PLANT

TD
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B546
1973
MOE

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MAR 13 1975

MINISTRY OF THE
ENVIRONMENT

1973

Blenheim : water treatment plant
81611



Ontario

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BLenheim

WATER TREATMENT PLANT

MINISTRY OF THE ENVIRONMENT

1973 ANNUAL OPERATING SUMMARY

prepared by
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T. Cross, Director



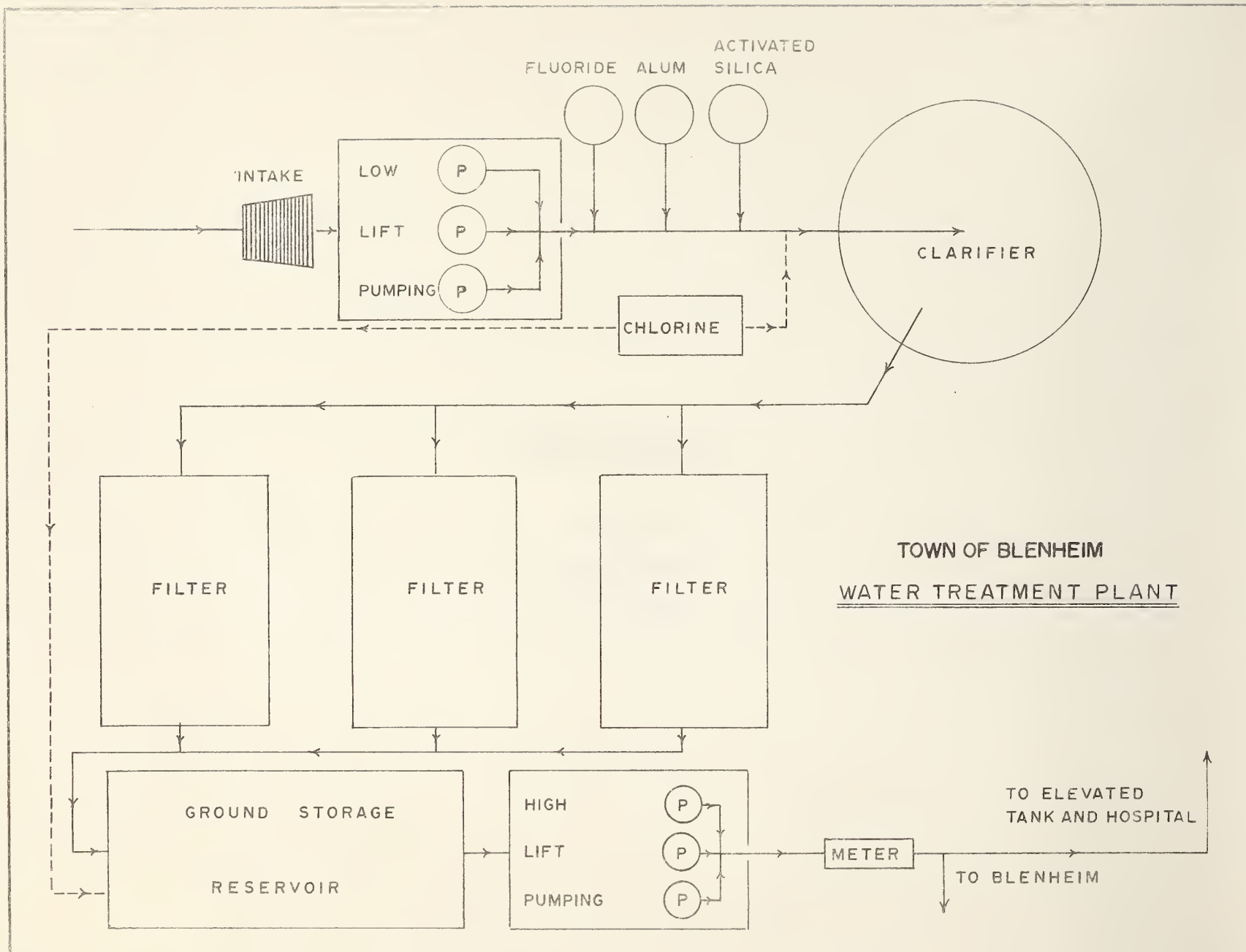
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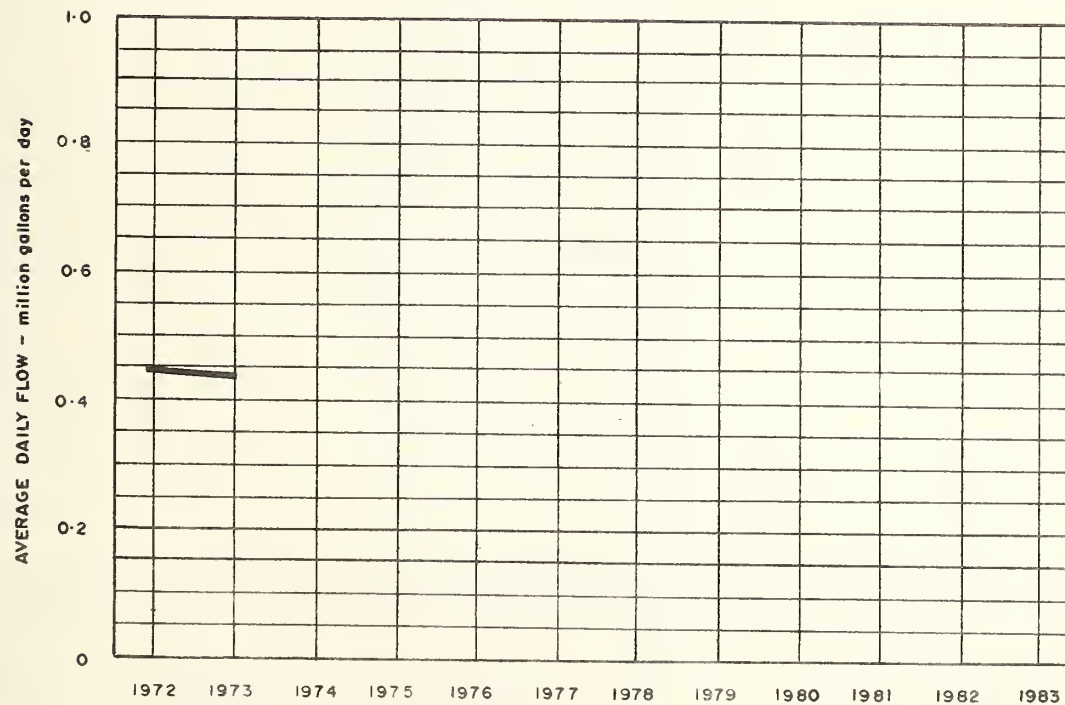
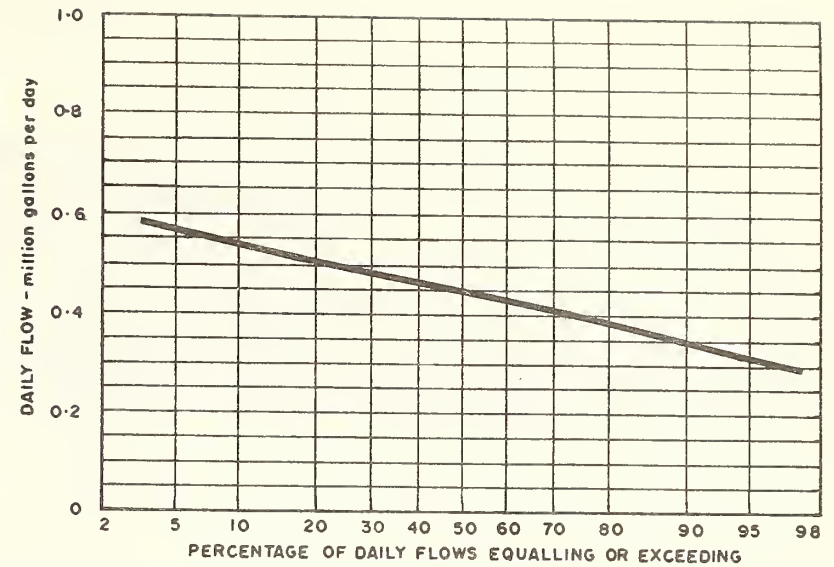
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PROCESS DATA FLOWS



DESIGN CAPACITY : 1.0 MGD

PLANT PERFORMANCE

MONTH	FLOWS				RAW WATER		TREATED WATER					
	TOTAL PLANT OUTPUT million gallons	AVERAGE DAILY FLOW million gallons	MAXIMUM DAY'S FLOW million gallons	MAXIMUM RATE mgd	TURBIDITY (AVERAGE) FTU	COLOUR (AVERAGE) App. units	TURBIDITY		COLOUR		TEMPERATURE	
							AVERAGE FTU	MAXIMUM FTU	AVERAGE App. units	MAXIMUM App. units	AVERAGE ° F	MAXIMUM ° F
JAN	13.98	0.45	0.59	0.90	23	41	0.59	1.10	<5	<5	35	38
FEB	11.90	0.42	0.47	0.83	12	20	4.40	4.40	<5	<5	34	35
MAR	12.27	0.39	0.44	0.85	18	27	0.20	0.25	<5	<5	36	39
APR	12.01	0.40	0.45	0.88	20	28	0.52	1.40	<5	<5	43	47
MAY	12.71	0.41	0.46	0.81	7	7	0.77	2.50	<5	<5	49	54
JUNE	13.97	0.47	0.53	0.94	5	6	0.22	0.50	<5	<5	66	62
JULY	15.09	0.49	0.59	1.02	6	5	0.33	1.10	<5	<5	63	73
AUG	15.10	0.49	0.59	0.88	2	<5	0.38	0.55	<5	<5	71	77
SEPT	15.00	0.50	0.57	0.96	6	5	0.15	0.20	<5	<5	68	73
OCT	14.08	0.45	0.57	1.00	10	9	0.17	0.30	<5	<5	64	67
NOV	12.16	0.40	0.47	0.98	15	22	0.17	0.20	<5	<5	52	59
DEC	10.96	0.35	0.47	0.94	19	14	0.37	0.65	<5	<5	41	48
TOTAL	159.23											
AVG.		0.43	MAXIMUM 0.59	MAXIMUM 1.02	12	15	0.69	MAXIMUM 4.40	<5	MAXIMUM <5	52	MAXIMUM 77

CHLORINATION and DISINFECTION

MONTH	RAW WATER					PLANT EFFLUENT		DISTRIBUTION SYSTEM		CHLORINATION			
	NUMBER OF SAMPLES HAVING TOTAL COLIFORM ORGANISMS PER 100 ml OF					NUMBER OF SAMPLES TAKEN	NUMBER HAVING COLIFORM ORGANISMS	NUMBER OF SAMPLES TAKEN	NUMBER HAVING COLIFORM ORGANISMS	TOTAL AMOUNT OF CHLORINE USED pounds	DOSAGE		RESIDUAL IN PLANT EFFLUENT mg/l
											PRE - mg/l	POST - mg/l	
	0	1 - 3	4 - 32	33 - 320	> 320								
JAN	2	0	2	0	0	4	0	8	0	186	1.6		0.7
FEB	4	0	0	0	0	4	0	8	0	193	1.7		0.8
MAR	3	0	1	0	0	4	0	8	0	203	1.8		0.8
APR	4	0	1	0	0	5	0	10	0	196	1.3		0.8
MAY	3	0	1	0	0	4	0	8	0	209	1.8		0.8
JUNE	4	0	0	0	2	4	0	8	0	246	1.9		0.8
JULY	5	0	0	0	0	5	0	10	0	324	2.3		0.7
AUG	1	0	2	0	0	3	0	6	0	368	2.3		0.8
SEPT	0	0	4	0	0	4	0	8	0	360	2.4		0.7
OCT	3	0	1	0	0	4	0	8	0	335	2.4		0.8
NOV	3	0	0	0	0	3	0	6	0	275	2.2		0.8
DEC	2	0	1	0	0	3	0	6	0	210	1.7		0.7
TOTAL	34	0	13	0	2	47	0	94	0	3105			
AVG.	4 (NOTE - Average shown is the GEOMETRIC MEAN)									8.5 pounds per day	1.9		0.8

TREATMENT DATA

MONTH	CHEMICALS USED						FILTRATION			
	A L U M		SODIUM SILICATE		FLUOSILICIC ACID		FILTER OPERATION			ALGAE
	AMOUNT USED gallons	DOSAGE mg/l	AMOUNT USED pounds	DOSAGE mg/l	AMOUNT USED pounds	DOSAGE mg/l	BACKWASH WATER mil gal	AVERAGE RUN hours	MINIMUM RUN hours	RAW WATER ASU/ml
JAN	572	26	1406	10	109	0.8	0.775	12	8	0
FEB	381	21	1012	8	98	0.8	0.590	12	10	0
MAR	657	35	1012	8	106	0.9	0.750	11	10	0
APR	924	50	1263	10	106	0.9	0.625	11	9	0
MAY	629	29	1013	8	108	0.8	0.650	12	9	467
JUNE	586	27	912	6	135	1.0	0.675	12	9	250
JULY	673	29	928	6	141	0.9	0.875	12	9	546
AUG	764	33	922	6	162	1.1	0.750	12	9	1451
SEPT	683	30	978	6	90	0.6	0.700	13	10	1081
OCT	644	30	924	7	112	0.8	0.575	12	9	1417
NOV	694	37	781	6	127	1.0	0.525	10	9	958
DEC	781	46	812	7	118	1.1	0.633	10	7	2611
TOTAL	7988		11963		1412		8.123			
AVG.		32		7		0.9	0.677	12	7	1001

WATER QUALITY

PROPERTY	RAW WATER				TREATED WATER				DESIRABLE STANDARDS
	NUMBER OF SAMPLES	AVERAGE	MAXIMUM	MINIMUM	NUMBER OF SAMPLES	AVERAGE	MAXIMUM	MINIMUM	
HARDNESS in mg/l as CaCO_3	44	129	146	116	43	131	144	104	80 - 100
ALKALINITY in mg/l as CaCO_3	44	94	100	63	43	77	87	58	30 - 100
IRON in mg/l Fe	44	0.63	3.70	<.05	41	.05	0.2	<.05	Less than 0.3
CHLORIDE in mg/l Cl^-	44	22	2.5	19	43	24	26	20	Less than 250
pH in pH units	44	8.0	8.2	6.8	43	7.2	7.8	6.6	7.0 - 8.5
FLUORIDE in mg/l F^-	44	0.1	0.5	0.1	42	0.7	1.1	0.1	Less than 1.2

MAY 9 1975

ONTARIO. MINISTRY OF THE
ENVIRONMENT. REGIONAL OPERATIONS
DIVISION.

TD 227/B54/B54/1973/MOE

BLenheim WATER TREATMENT PLANT.
(ANNUAL OPERATING SUMMARY)

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DATE	ISSUED TO
MAY 9 1975	ASDG H.K. Collins Chatham

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